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Enhanced BIS statistics on credit risk transfer[1]

From June 2011, the BIS credit derivatives statistics provide more granular information on the types of risks transferred through credit default swaps by different groups of counterparties. The new data suggest that reporting dealers have used some hard-to-value credit derivatives to transfer credit risk to shadow banks, possibly exposing these counterparty groups to valuation risks. The data also show that some financial counterparties have sold protection against defaults in the same sector on a net basis.

JEL classification: C82, G18.

The BIS CDS statistics were enhanced in two phases

Opacity about the location of exposures to failing financial institutions exacerbated the recent financial crisis. In particular, there was a shortage of information about the web of credit risk transfers through over-the-counter (OTC) derivatives. To reduce that data gap, the Committee on the Global Financial System (CGFS) proposed two sets of enhancements to the semiannual credit default swaps (CDS) statistics compiled by the BIS (CGFS (2009)). These have been implemented in two phases.

First, a finer breakdown of financial counterparties was introduced

The first set of enhancements, introduced with the June 2010 statistics, provides a finer classification of the counterparties of reporting derivatives dealers (Vause (2010)). The new data showed net credit risk transfers from hedge funds to reporting dealers and from reporting dealers to all other sectors.[2] This pattern persisted in December 2010 and June 2011 (Graph 1).

Second, the types of risks exchanged with counterparties were decomposed

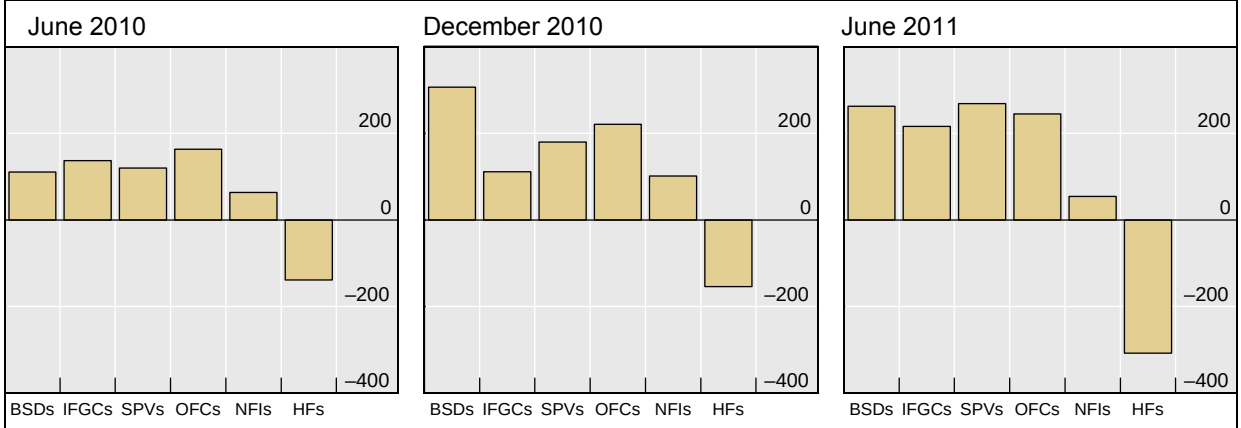
The second set of enhancements, first applied to the June 2011 data, makes two further improvements. It decomposes total credit risk transfers with each counterparty group according to characteristics of the underlying debt (sector, rating and maturity). It also reveals the market values of credit risk transfers with counterparties in different sectors after netting of any bilateral CDS positions with offsetting market values. This identifies counterparty groups

[1] The views expressed in this article are those of the author and do not necessarily reflect those of the BIS. I am grateful to Claudio Borio and Christian Upper for useful comments on earlier drafts of this article, and to Denis Pêtre for able research assistance.

[2] Note that transfers involving reporting dealers provide quite a comprehensive picture of all credit risk transfers, as BIS reporting dealers are (at least) one of the counterparties to the vast majority of outstanding CDS.

Net credit protection bought by reporting dealers from different counterparty groups[1]

Gross CDS protection bought minus gross CDS protection sold, in billions of dollars



[1] BSDs = banks and securities dealers; IFGCs = insurance and financial guaranty companies; SPVs = special purpose vehicles; OFCs = other financial companies; NFIs = non-financial institutions; HFs = hedge funds. The counterparty group "other reporting dealers" is omitted, as the net protection traded between reporting dealers should be zero. Similarly, the counterparty group "central counterparties" is omitted as a counterparty category, as almost all the CDS positions cleared by central counterparties to date were originally inter-dealer positions, which represent zero net protection bought in aggregate. Both of these theoretical restrictions are reflected in the data to a close approximation.

Sources: Central banks of the G10 countries and Switzerland; BIS and author's calculations. Graph 1

with net claims on dealers and vice versa.[3] Results are described, in turn, below.

Characteristics of sectoral credit risk transfers

Graph 2 decomposes the net credit risk transfers by counterparty group as of June 2011 shown in the right-hand panel of Graph 1 by type of risk. In particular, it splits these totals by debtor sector, credit rating or residual maturity.

Risk transfers to non-bank financials occurred via hard-to-value CDS

Reporting dealers transferred credit risk to insurance and financial guaranty companies (IFGCs), special purpose vehicles (SPVs) and other financial companies (OFCs)[4] mainly through CDS referencing debt from multiple sectors and CDS that were not rated (Graph 2, left-hand and centre panels).[5] These types of CDS can be difficult to value and have experienced

[3] In addition, the second set of enhancements reveals the share of outstanding multi-name CDS positions that are CDS indices, including index tranches. This was 87% as of June 2011. CDS index tranches are generally not straightforward to value and are often less liquid than CDS indices. According to data from the Depository Trust & Clearing Corporation, index tranches represented 19% of all outstanding CDS indices as of June 2011.

[4] Pension funds are included in the IFGC category. Other managed funds, such as money market mutual funds, are well represented in the OFC category.

[5] Information is not available on positions in CDS that are both non-rated and reference multiple sectors, but supplementary BIS data do show that the majority of non-rated risk transfers to IFGCs, SPVs and OFCs occurred through multi-name CDS. Multi-name CDS that are likely to reference multiple sectors and be classified as non-rated include basket CDS, synthetic collateralised debt obligations (CDOs) and CDS index tranches. Where multi-name CDS did not have a rating, reporting dealers were asked to allocate these instruments to a rating bucket on the basis of the credit quality of the underlying debt, unless this was "not possible or very burdensome". The products listed above would probably fit this description. Also, note that some single-name CDS, such as synthetic CDOs and CDS on asset-backed securities,

significant price jumps in the past. To the extent that such risks remain, some of them appear to have been passed on from reporting dealers to their counterparties.

Some counterparties sold protection on their own sector

The left-hand panel of Graph 2 also shows that some counterparty sectors sold protection on a net basis against defaults in the same sector. In particular, (non-reporting) banks and securities dealers (BSDs) and SPVs sold protection against defaults of financial institutions. This is despite expectations of simultaneous defaults of counterparties and reference entities in common sectors often being higher than for counterparties and reference entities in different sectors. In contrast, much of the credit risk transfer from reporting dealers to non-financial institutions (NFIs) related to financial debt.

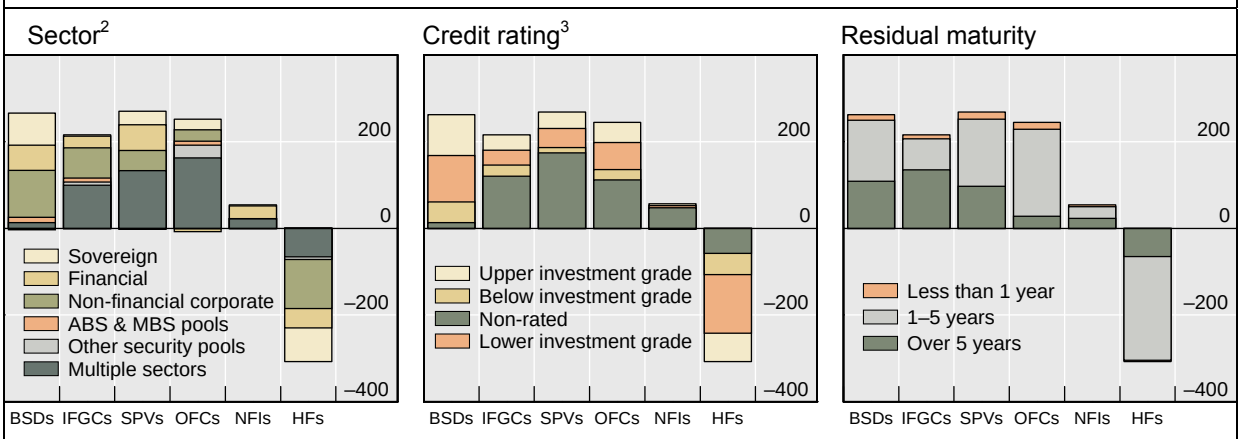
The distribution of rated credit risk transfers across counterparty groups was fairly uniform across ratings, as can be seen in the centre panel of Graph 2. All counterparty groups had a relatively large position in investment grade credit and a smaller position in sub-investment grade credit. This reflects the relative prevalence of the two grades in the market. Within investment grade, hedge funds had a larger position in lower-rated credit than higher-rated credit, while the balance was more even for the other counterparty groups.

Insurers took on longer-term credit risk

With the exception of IFGCs, the majority of credit risk transfers had residual maturities of one to five years (Graph 2, right-hand panel). This reflects the five-year maturity being the benchmark for trading credit protection on most reference entities. As a result, five-year CDS are often the most liquid contracts, which therefore reflect the best prices. IFGCs, by contrast, mostly

Net credit protection bought by reporting dealers from selected counterparty groups by characteristics of the underlying debt[1]

Gross CDS protection bought minus gross CDS protection sold, in billions of dollars



[1] See footnote 1 of Graph 1. [2] ABS and MBS pools are the collections of collateral assets, such as mortgages and credit card receivables, against which asset-backed securities (ABS) and mortgage-backed securities (MBS) are issued. Other securitisation pools include collections of corporate loans against which collateralised debt obligations (CDOs) are issued. [3] Upper investment grade = AA– or above; lower investment grade = A+ to BBB–; below investment grade = BB+ or below. Where CDS were not rated, reporting dealers were asked to assign a rating based on the credit quality of the reference obligations, unless this was "not possible or very burdensome".

Sources: Central banks of the G10 countries and Switzerland; BIS and author's calculations. Graph 2

are classified as multi-name instruments in the new BIS data because they have multiple underlying credits.

offered credit protection with residual maturities in excess of five years. This may reflect the long-term horizons of some businesses in this sector, such as life insurance. Supplementary BIS data show that IFGCs took on longer-term credit risk via multi-name CDS more than through single-name CDS. This is consistent with the finding that long-term multi-name CDS are often more liquid than long-term single-name CDS.

Market values of sectoral credit risk transfers

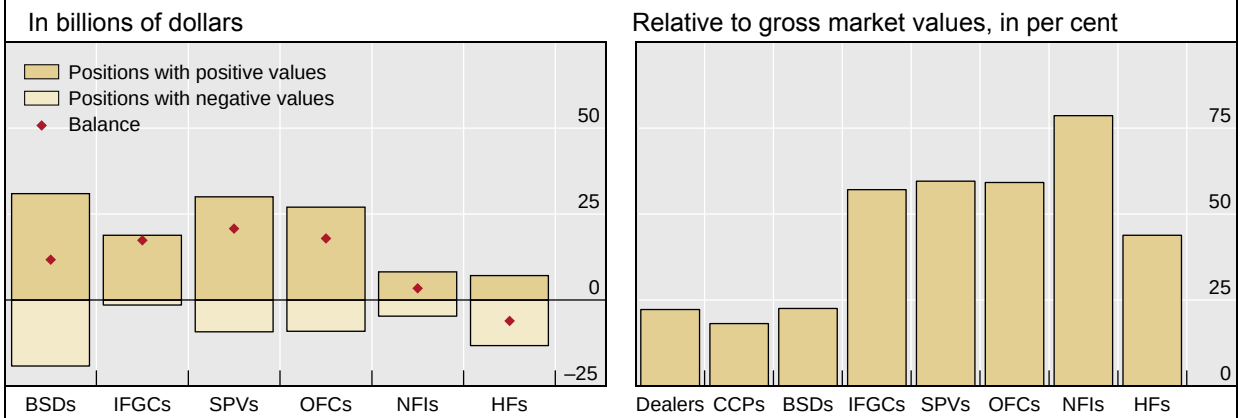
Market values of sectoral risk transfers were small compared with balance sheets

The market values of the credit risk taken on or shed by different counterparty sectors as of June 2011 were very small relative to their overall balance sheets. The bars in the left-hand panel of Graph 3, which show the gross positive and negative market values of outstanding CDS positions of reporting dealers with counterparties in different sectors, are much larger in absolute amount than the red diamonds, which correspond to the net values. These reflect offsetting of bilateral positions with positive and negative market values wherever the two counterparties to the positions have signed a legally enforceable netting arrangement. Reporting dealers had net claims on all sectors except hedge funds. Net claims on BSDs, IFGCs, SPVs and OFCs were of the order of $15–20 billion, while those on NFIs were somewhat smaller. Each of these claims represented less than 0.1% of dealers' total assets. Hedge funds had a net claim on dealers, of a little over $5 billion, which was less than 0.3% of their total assets.

Inter-dealer and dealer-CCP positions netted much more than other positions

Separately, comparison of net market values with gross market values by counterparty sector suggests that inter-dealer positions and positions between dealers and central counterparties (CCPs) net to a much greater extent than other positions. The right-hand panel of Graph 3 divides the net market values of reporting dealers' outstanding CDS positions with different counterparty sectors by the gross market values of those positions. The net market value is the sum of all bilateral positions with positive (or, equivalently, negative) market value after netting, while the gross market value is constructed in the

Net market value of reporting dealers' CDS positions with different counterparty groups[1]



[1] See footnote 1 of Graph 1. In addition: Dealers = other reporting dealers; CCPs = central counterparties.

Sources: Central banks of the G10 countries and Switzerland; BIS and author's calculations. Graph 3

same way but without netting. The ratios therefore reflect the pervasiveness of CDS netting by counterparty sector. The graph suggests significant netting benefits for inter-dealer positions, as the net market value of these positions is equal to around 25% of their gross market value. CCPs, which stand between bilateral counterparties, compress the ratio of net to gross market value to an even greater extent. Trades between dealers and other counterparty groups do not net as much, probably reflecting a much smaller number of positions.

Conclusions

A key insight from the enhanced BIS credit derivatives data is that non-rated multi-name credit risk sourced from multiple sectors has been transferred from derivatives dealers to IFGCs, SPVs and OFCs. Such risk transfers are likely to have been generated by basket CDS, synthetic CDOs or CDS index tranches. These types of CDS can be difficult to value and have experienced significant price jumps in the past. To the extent that such risks remain, they appear to have been passed on from the banking sector to parts of the non-bank financial sector often known as shadow banks.

The new data also show that BSDs and SPVs had sold on a net basis credit protection on financial debt. The risk of simultaneous default of protection sellers and reference entities is often higher when these institutions come from a common sector, rather than different sectors. As the financial sector is broad, however, this risk could have been mitigated by careful pairing of reference entities with counterparties.

References

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